

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An antibody specifically recognizing proliferative human hepatocytes that exist in a hepatocyte population isolated from an adult human liver and have clonal proliferative ability and differentiation ability to functional hepatocytes which antibody is produced by a hybridoma cell prepared by using human hepatocytes subcultured for at least four passages as an immunogen.

2. (Currently amended) The antibody of claim 1, ~~which is produced by~~ wherein the hybridoma cell[[,]] is Mouse-Mouse hybridoma K8223 (FERM BP-8334).

3. (Previously presented) A hybridoma cell producing the antibody of claim 1.

4. (Original) The hybridoma cell of claim 3, which is Mouse-Mouse hybridoma K8223 (FERM BP-8334).

5. (Withdrawn) A method for isolating proliferative human hepatocytes, which comprises separating cells recognized by the antibody of claim 1, from a human hepatocyte population.

6. (Withdrawn) Proliferative human hepatocytes separated by the method of claim 5.

7. (Withdrawn) A method for inducing the differentiation of the proliferative human hepatocytes of claim 6, which comprises performing at least one of the following means:

- (a) spheroid culture of the proliferative human hepatocytes; and
- (b) transfer of hepatic nuclear factor 4 (HNF4) gene into the proliferative human hepatocytes.

8. (Withdrawn) Functional human hepatocytes induced to differentiate by the method of claim 7.

9. (Withdrawn) A cell kit comprising the functional human hepatocytes of claim 8.

10. (Withdrawn) A hybrid artificial liver packed with the functional human hepatocytes of claim 9.

11. (Withdrawn) A method for isolating proliferative human hepatocytes, which comprises separating cells recognized by the antibody of claim 2, from a human hepatocyte population.

12. (Withdrawn) Proliferative human hepatocytes separated by the method of claim 11.

13. (Withdrawn) A method for inducing the differentiation of the proliferative human hepatocytes of claim 12, which comprises performing at least one of the following means:

- (a) spheroid culture of the proliferative human hepatocytes; and
- (b) transfer of hepatic nuclear factor 4 (HNF4) gene into the proliferative human hepatocytes.

14. (Withdrawn) Functional human hepatocytes induced to differentiate by the method of claim 13.

15. (Withdrawn) A cell kit comprising the functional human hepatocytes of claim 14.

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16. (Withdrawn) A hybrid artificial liver packed with the functional human hepatocytes of claim 15.